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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/786,795	02/24/2004	Vieri Vanghi	040003	3351
23696 7590 07/27/2007 QUALCOMM INCORPORATED 5775 MOREHOUSE DR. SAN DIEGO, CA 92121				
EXAMINER PORTIS, SHANTELL L				
ART UNIT		PAPER NUMBER		
2617				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/786,795	Applicant(s) VANGHI ET AL.	
	Examiner Shantell Portis	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 2/24/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to independent claim 1 have been considered but are moot in view of the new ground(s) of rejection. Lee et al. discloses a device and method for performing handoff from async mobile communication system to sync mobile communication system. According to Col. 1, lines 25-37, the async mobile communication system includes a terminal operating in accordance with the standardized 3GPP and the sync mobile communication system is a system operating in accordance with the standardized 3GPP2. These two systems are becoming increasingly harmonized and there is thus a need for various technologies that are compatible with both systems. One of such technologies is related to handoff that may happen between the sync mobile communication system and the async mobile communication system.

2. Applicant's arguments filed on May 16, 2007 have been fully considered but they are not persuasive. Regarding claim 4, applicant argues that ***Singh relates to intersystem handover between UMTS and GSM, which are covered by 3GPP and Patel relates to reducing latency for non-call delivery paging in IS-2000, which is covered by 3GPP2. At the time of filing of the present application, no provisions are described by 3GPP and 3GPP2 to perform handover from a UMTS/W-CDMA system to an cdma2000/IS-2000 system*** on page 11 of applicant's remarks.

According to Lee et al. as described above regarding claim 1, there is a need for the two systems (3GPP and 3GPP2) to relate thereby providing handoff between sync mobile

communication system and async mobile communication system as further disclosed by Lee et al. Therefore, the examiner maintains the rejection as set forth below.

Claim Objections

3. Claim 10 is objected to because of the following informalities: "and" should be changed to "wherein". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-3, 7-13, 15, 18, 20-27 and 29-32 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee et al. (Lee), U.S. Patent No. 7,130,284.

Regarding Claims 1, 13, 15, 18, 27 and 29, Lee discloses a wireless device, a method and apparatus operable to communicate with first and second wireless communication networks of different radio access technologies, comprising: a first modem processor (**first baseband processor 403**) operative to perform processing for a pending call with the first wireless network implementing a first radio access technology from 3rd Generation Partnership Project (3GPP) (**async mobile communication system**), receive a first message from the first wireless network to perform handoff to the second wireless network, and provide notification of the handoff; and a second modem processor (**second baseband processor 406**) operative to

exchange a second message with the second wireless network implementing a second radio access technology from 3rd Generation Partnership Project 2 (3GPP2) (**sync mobile communication system**) to establish a new call with the second wireless network, perform a call setup procedure with the second wireless network to establish the new call, and perform processing for the new call with the second wireless network (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claims 2 and 18, Lee discloses further comprising: an application processor operative to receive the notification from the first modem processor, direct the second modem processor to establish the new call, and direct the first modem processor to release the pending call (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 3, Lee discloses wherein the application processor is operative to direct the first modem processor to release the pending call concurrently with the establishment of the new call or shortly after the new call has been established to minimize disruption of service (**Col. 9, line 62-Col. 10, line 39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 7, Lee discloses wherein the pending and new calls are voice calls (**Col. 1, lines 38-50**).

Regarding Claim 8, Lee discloses wherein the first modem processor is operative to maintain a first protocol stack for communication with the first wireless network and the second modem processor is operative to maintain a second protocol

stack for communication with the second wireless network (**Col. 9, line 62-Col. 10, line 39**).

Regarding Claim 9, Lee discloses wherein the second modem processor is operative to perform pilot re-acquisition and cell search, as necessary, obtain updated system information, and perform system access for the second wireless network to establish the new call (**Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 10, Lee discloses wherein operable to communicate with the first and second wireless networks simultaneously (**Col. 14, line 51-Col. 15, line 46**).

Regarding Claim 11, Lee discloses wherein the handoff is triggered by the first wireless network based on measurements obtained by the wireless device (**Col. 14, lines 51-61**).

Regarding Claim 12, Lee discloses wherein the handoff is triggered by the first wireless network based on location information for the wireless device (**Col. 13, lines 27-30**).

Regarding Claim 20, Lee discloses wherein the first modem processor is further operative to receive from the first wireless network a second message carrying a list of frequencies to search for cells in the second wireless network, and to send to the first wireless network a third message carrying search results for the list of frequencies, and wherein the second modem processor is further operative to perform pilot acquisition and cell search for the list of frequencies and to provide the search results (**Col. 13, lines 27-39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 21, Lee discloses wherein the first message from the first

wireless network includes information for one or more target cells in the second wireless network to which the wireless device is handed off (**Col. 13, lines 27-39 and Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 22, Lee discloses wherein the one or more target cells are determined by the first wireless network based on search results from the second modem processor for a list of frequencies in the second wireless network (**see rejection for claim 21**).

Regarding Claim 23, Lee discloses wherein the second modem processor is further operative to send a second message to the second wireless network indicating successful completion of the handoff to the second wireless network **Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 24, Lee discloses wherein the first modem processor is operative to autonomously terminate the pending call with the first wireless network after providing the notification of the handoff **Col. 14, line 51-Col. 15, line 17**).

Regarding Claim 25, Lee discloses wherein the application processor is further operative to direct the first modem processor to terminate the pending call with the first wireless network (**see rejection for claim 24**).

Regarding Claim 26, Lee discloses wherein the first wireless network terminates the pending call based on signaling between the first and second wireless networks (**see rejection for claim 24**).

Regarding Claim 30, Lee discloses wherein the first and second modem processors independently perform processing for the first and second wireless networks, respectively (**Col. 9, line 62-Col. 10, line 39 and Figure 4**).

Regarding Claim 31, Lee discloses wherein the first and second modem processors support concurrent with the first and second wireless networks (**Col. 9, line 62-Col. 10, line 39 and Figure 4**).

Regarding Claim 32, Lee discloses wherein the first and second modem processors are implemented with separate processors (**Col. 9, line 62-Col. 10, line 39 and Figure 4**).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 4-6, 14, 16, 17, 19 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee in view of Patel et al. (Patel), U.S. Publication No. 2004/0203469 and Singh et al. (Singh), U.S. Publication No 2003/0139184.

Regarding Claims 4, 14, 16, 19 and 28, Lee discloses the wireless device, a method and apparatus as described above.

Lee fails to disclose wherein the first radio access technology is Wideband Code Division Multiple Access (W-CDMA) and the second radio access technology is IS-2000.

In a similar field of endeavor, Singh discloses wherein the first wireless network implements Wideband Code Division Multiple Access (W-CDMA) (**see paragraphs [0024], [0026] and [0028]**) and Patel discloses wherein the second wireless network implements IS-2000 **[0022]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow for a mobile user to roam from one region to another where different radio access technologies are covered allowing for calls to be maintained and set up on the existing network [Singh-0007] where the regions are two systems that are becoming harmonized and there is a need for various technologies that are compatible with both systems relating to handoff (Lee-Col. 1, lines 32-37).

Regarding Claim 5, Lee discloses the wireless device wherein the second modem processor is operative to perform a mobile terminated (MT) call setup procedure defined by IS-2000 (**Col. 14, line 51-Col. 15, line 17**) as described above.

Lee fails to disclose wherein the second message is a General Page Message sent by the second wireless network.

Patel discloses a mobile terminated (MT) call setup procedure defined by IS-2000, and wherein the message is a General Page Message sent by the wireless network **[0022]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to use a well-known format of a general page message according to TIA/EIA IS-2000 [Patel-0022] in a mobile communication system operating in accordance with IMT-2000 specification (Lee-Col. 1, lines 25-30).

Regarding Claim 6, Lee discloses the wireless device wherein the second modem processor is operative to perform a mobile originated (MO) call setup procedure defined by IS-2000 (**Col. 14, line 51-Col. 15, line 17**) as described above.

Lee fails to disclose wherein the second message is an Origination Message sent to the second wireless network.

Patel discloses a mobile originated (MO) call setup procedure defined by IS-2000, and wherein the message is an Origination Message sent to the wireless network [0030].

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to request establishment of a traffic channel between a device in handoff between two different systems utilizing two different networks.

8. Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Singh in view of Patel.

Regarding Claim 17, Singh discloses a UMTS (Universal Mobile Telecommunications System) Terrestrial Radio Access Network (UTRAN) comprising: means for processing a pending call with a wireless device; means for sending a first message to the wireless device to perform a handoff to a radio access network (RAN); means for sending a second message to a UMTS mobile switching center (MSC) to

request relocation of the wireless device to another MSC in the RAN; means for receiving an indication of a new call established for the wireless device with the RAN; and means for terminating the pending call with the wireless device as described above (**see paragraphs [0069]-[0071]**).

Singh fails to disclose wherein the radio access network is a cdma 2000.

Patel discloses wherein the radio access network is a cdma 2000 **[0022]**.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to allow for a mobile user to roam from one region to another where different radio access technologies are covered allowing for calls to be maintained and set up on the existing network **[0007]**.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantell Portis whose telephone number is 571-272-0886. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid can be reached on 571-272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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